

# POISON

KEEP OUT OF REACH OF CHILDREN  
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

# Leopard® 200

## Herbicide

ACTIVE CONSTITUENT: **200 g/L QUIZALOFOP-P-ETHYL**

SOLVENT: 737 g/L HYDROCARBON LIQUIDS

**GROUP A HERBICIDE**

Crops: Canola, Chickpeas, Faba Beans, Lentils, Mungbeans, Pastures, Peanuts and other crops as listed in the Directions for Use

Controls: Certain grass weeds as specified in the Directions for Use



# ADAMA

Formulation type

Emulsifiable  
Concentrate

**EC**

adama.com

CONTENTS: 10 L, 20 L, 110 L, 200 L, 1000 L

### DIRECTIONS FOR USE RESTRAINTS

**DO NOT** apply to crops that are stressed by any cause (such as severe cold weather, disease, drought or waterlogging).

**DO NOT** apply to weeds that are stressed by any cause (such as weather conditions, drought, waterlogging) or not actively growing. Grass weeds under stress frequently become less susceptible to herbicide activity. This may result in an incomplete kill or suppression of weeds only.

**DO NOT** apply under conditions of high temperature and low humidity.

**DO NOT** apply if rainfall is expected within 3 hours.

**DO NOT** apply less than 50 L prepared spray/ha – see section "Ground Spraying".

### BOOM SPRAYING: WINTER GROWING WEEDS: ALL STATES

CROPS	WEEDS CONTROLLED	WEEDS STAGE	RATE	WITHOLDING PERIOD		CRITICAL COMMENTS
				HARVEST	GRAZING	
Beetroot, Cabbage, Canola, Carrots, Cauliflower, Chickpeas, Clover & Subclover, Pastures, Cucumbers*, Faba Beans, Field Peas, Honey Dew, Melons*, Lentils, Lucerne, Lupins, Medic Pasture, Mungbeans, Navy Beans, Onions, Potatoes, Pumpkins*, Radish, Tomatoes, Vetch	Annual Ryegrass ( <i>Lolium rigidum</i> ), Brome Grasses ( <i>Bromus</i> spp.)	3 leaf to early tillering	150 mL/ha or 190 mL/ha	14 days 9 weeks 11 weeks 10 weeks 14 days 12 weeks	- - 4 weeks - - 4 weeks	Apply when weeds are actively growing. Use higher rate under heavy weed pressure, and/or when weeds have commenced tillering*.
	Barley grass ( <i>Hordeum</i> spp.), Volunteer Barley, Volunteer Wheat		125 mL/ha	- 14 days 12 weeks 9 weeks	14 days - 4 weeks 4 weeks	Apply when weeds are actively growing*.
	Wild Oats ( <i>Avena</i> spp.)	3 leaf to mid tillering	65 mL/ha or 125 mL/ha	9 weeks 12 weeks - 6 weeks - 12 weeks 12 weeks 18 weeks 10 weeks 9 weeks 21 days 4 weeks 12 weeks	- 4 weeks 4 weeks 4 weeks - 14 days 4 weeks 4 weeks - - - - - 4 weeks	Apply when weeds are actively growing. Use the lower rate only under light weed pressure and/or when weeds are at the 1-3 leaf stage. Use higher rate under heavy weed pressure and/or when weeds are tillering. The higher rate will give better or more reliable control*.

\*Always add a surfactant/wetting agent at the recommended rate. See section on "Use of Adjuvants, Surfactants and Wetting Agents" section" for details.

≠**IMPORTANT: DO NOT** apply LEOPARD® 200 EC Herbicide before the five true leaf stage of Cucumbers, Honey Dew Melons and Pumpkins.

**BOOM SPRAYING: SUMMER GROWING WEEDS: ALL STATES**

CROPS	WEEDS CONTROLLED	WEEDS STAGE	RATE	WITHHOLDING PERIOD		CRITICAL COMMENTS	
				HARVEST	GRAZING		
Beetroot, Cabbage, Cauliflower, Carrots, Cucumbers*, Green beans, Honey dew, melons*, Lucerne, Mung Beans, Navy Beans, Onions, Peanuts, Potatoes, Pineapples, Pumpkins*, Radish, Soybeans, Sunflower, Tomatoes	Awnless Barnyard Grass ( <i>Echinochloa colona</i> ), Barnyard Grass ( <i>Echinochloa crusgalli</i> )	3 leaf to early tillering	250 mL/ha or 375 mL/ha	14 days 9 weeks 14 weeks 10 weeks 14 days	- - - - -	Apply when weeds are actively growing. Use higher rate under heavy weed pressure, and/or when weeds have commenced tillering*.	
	Couch Grass ( <i>Cynodon dactylon</i> )	2 - 4 leaf seedling	250 mL/ha	5 weeks 9 weeks -	4 weeks - 4 weeks	Apply when weeds are actively growing. This rate will only control seedling Couch Grass which is less than 2 months old and established from seed*.	
	Dinebra ( <i>Dinebra retroflexa</i> )	3 leaf to early tillering	125 mL/ha or 190 mL/ha	12 weeks 18 weeks 11 weeks 10 weeks	- - 11 weeks -	Apply when weeds are actively growing. Use higher rate under heavy weed pressure, and/or when weeds have commenced tillering*.	
	Crowsfoot Grass ( <i>Eleusine indica</i> )	2 leaf to early tillering	250 mL/ha	7 days 9 weeks 21 days	- - -	Apply when weeds are actively growing*.	
	Foxtail Millet ( <i>Setaria italica</i> )		125 mL/ha or 250 mL/ha	12 weeks 9 weeks 4 weeks	4 weeks 11 weeks -	Apply when weeds are actively growing. Use higher rate under heavy weed pressure, and/or when weeds have commenced tillering*.	
	Columbus Grass ( <i>Sorghum x almum</i> ), Johnson Grass ( <i>Sorghum halepense</i> ), Liverseed Grass ( <i>Urochloa panicoides</i> )	2 leaf to 3 tiller	250 mL/ha or 375 mL/ha				
	Rhodes Grass ( <i>Chloris gayana</i> ), Stink Grass ( <i>Eragrostis cilianensis</i> )	3 leaf to early tillering	125 mL/ha or 250 mL/ha				
	Queensland Blue Grass ( <i>Dichanthium sericeum</i> )		250 mL/ha				Apply when weeds are actively growing*.
	Summer Grass ( <i>Digitaria ciliaris</i> )		250 mL/ha or 500 mL/ha				Apply when weeds are actively growing. Use higher rate under heavy weed pressure, and/or when weeds have commenced tillering*.

\*Always add a surfactant/wetting agent at the recommended rate. See section on "Use of Adjuvants, Surfactants and Wetting Agents" for details.

≠**IMPORTANT: DO NOT** apply LEOPARD® 200 EC Herbicide before the five true leaf stage of Cucumbers, Honey Dew Melons and Pumpkins.

**HAND GUN SPRAYING: ALL STATES**

CROPS	WEEDS CONTROLLED	WEEDS STAGE	RATE	WITHHOLDING PERIOD		CRITICAL COMMENTS
				HARVEST	GRAZING	
Beetroot, Cabbage, Cauliflower, Canola, Carrots, Chickpeas, Clover & Sub Clover Pastures Cucumbers*, Faba Beans, Field Peas, Grapes, Green Beans, Honey Dew, Melons*, Lentils, Lucerne, Lupins, Medic Pasture, Mungbeans, Navy Beans, Non Crop, Onions, Peanuts, Pineapples, Potatoes, Pumpkins*, Radish, Soybeans, Sunflowers, Tomatoes, Vetch	Awnless Barnyard Grass ( <i>Echinochloa colona</i> ), Crowfoot Grass ( <i>Eleusine indica</i> )	3 leaf to early tillering	65 mL/ha	14 days	-	Apply when weeds are actively growing. Use a minimum of 800 L of prepared spray/ha. Thoroughly wet target weeds (especially well established clumps) without causing runoff. Repeat spraying may be necessary for perennial grass species.
				9 weeks	-	
	14 days	-				
	11 weeks	4 weeks				
	Paspalum ( <i>Paspalum dilatatum</i> )	Seedling to Established Clumps		10 weeks	-	Always add a surfactant/ wetting agent at the recommended rate – see section on “Use of Adjuvants, Surfactants and Wetting Agents” for details.
12 weeks				4 weeks		
	Johnson Grass ( <i>Sorghum halepense</i> )	Seedling 2 leaf to early tillering	125 mL/ha	-	14 days	
				14 days	-	
		Rhizome 2 leaf to early tillering		12 weeks	4 weeks	
				9 weeks	4 weeks	
	Kikuyu ( <i>Pennisetum Clandestinum</i> )	Seedling to Established plants		-	-	
				5 weeks	4 weeks	
				9 weeks	-	
				12 weeks	4 weeks	
				-	4 weeks	
				6 weeks	4 weeks	
				-	14 days	
				12 weeks	4 weeks	
				12 weeks	4 weeks	
				-	-	
				18 weeks	-	
				11 weeks	11 weeks	
	7 days	-				
	10 weeks	-				
	9 weeks	-				
	21 days	-				
	12 weeks	4 weeks				
	9 weeks	11 weeks				
	4 weeks	-				
	12 weeks	4 weeks				

≠**IMPORTANT: DO NOT** apply LEOPARD® 200 EC Herbicide before the five true leaf stage of Cucumbers, Honey Dew Melons and Pumpkins.

**NOT TO BE USED FOR ANY PURPOSE OR IN ANY MANNER CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.**

**WITHHOLDING PERIODS**

**HARVEST**

**BEETROOT, CAULIFLOWER, CUCUMBERS: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.**

**CABBAGE, FIELD PEAS, HONEY DEW MELON, PUMPKINS, SUNFLOWERS:**

**DO NOT HARVEST FOR 9 WEEKS AFTER APPLICATION.**

**CARROTS, POTATOES:**

**DO NOT HARVEST FOR 10 WEEKS AFTER APPLICATION.**

**CHICKPEAS, FABA BEANS, LENTILS, MUNG BEANS, NAVY BEANS, SOYBEANS, VETCH:**

**DO NOT HARVEST FOR 12 WEEKS AFTER APPLICATION.**

**CANOLA, PEANUTS:**

**DO NOT HARVEST FOR 11 WEEKS AFTER APPLICATION.**

**GREEN BEANS:**

**DO NOT HARVEST FOR 5 WEEKS AFTER APPLICATION.**

**GRAPES:**

**NOT REQUIRED WHEN USED AS DIRECTED.**

**LUPINS:**

**DO NOT HARVEST FOR 6 WEEKS AFTER APPLICATION.**

**ONIONS:**

**DO NOT HARVEST FOR 18 WEEKS AFTER APPLICATION.**

**PINEAPPLES:**

**DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.**

**RADISH:**

**DO NOT HARVEST FOR 21 DAYS AFTER APPLICATION.**

**TOMATOES:**

**DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION.**

**GRAZING**

**CANOLA, CHICKPEAS, FABA BEANS, FIELD PEAS, GREEN BEANS, LENTILS, LUCERNE, LUPINS, MUNGBEANS, NAVY BEANS, SOYBEANS, VETCH:**

**DO NOT GRAZE OR CUT FOR STOCK FEED FOR 4 WEEKS AFTER APPLICATION.**

**CLOVER, MEDIC PASTURES (EXCEPT LUCERNE):**

**DO NOT GRAZE OR CUT FOR STOCK FEED FOR 14 DAYS AFTER APPLICATION.**

**PEANUTS, SUNFLOWERS:**

**DO NOT GRAZE OR CUT FOR STOCK FEED FOR 11 WEEKS AFTER APPLICATION.**

## GENERAL INSTRUCTIONS

LEOPARD® 200 EC Herbicide is an emulsifiable concentrate herbicide used post emergence for the control of certain grass weeds in specified broadleaf crops.

LEOPARD® 200 EC Herbicide is a systemic herbicide, which is rapidly absorbed and readily translocates from the treated foliage to the root system and growing points of the plant. Applications made to grass weeds stressed due to insufficient moisture or cold temperatures may result in unsatisfactory control.

### Time of Application

For maximum benefit, weeds should be sprayed when young and actively growing. Application may be made at any stage of crop growth (except to cucurbit crops), but sufficient time must be allowed for the prescribed withholding period to expire before harvest and / or grazing or cutting for stockfeed.

**IMPORTANT: DO NOT** apply LEOPARD® 200 EC Herbicide to cucurbit crops before the five true leaf stage.

### Spray Preparation

If spray equipment has been previously used for the application of sulfonylurea herbicides e.g. (Metsulfuron methyl), chlorsulfuron, thifensulfuron methyl, triasulfuron, ensure that the recommended sprayer equipment procedure for the product previously applied has been followed, before using the equipment for the application of LEOPARD® 200 EC Herbicide. LEOPARD® 200 EC Herbicide is an emulsifiable concentrate to be mixed with water and applied as a spray. Add the required amount of LEOPARD® 200 EC Herbicide directly to the spray tank and mix well. If mixing with mancozeb or carbendazim, add these to the spray tank and mix thoroughly PRIOR to adding LEOPARD® 200 EC Herbicide. If spray solution has been left standing for more than 3 hours ensure thorough re-agitation before commencement of spraying. DO NOT allow spray mixture to stand overnight, as re-suspension may be difficult.

### Use of Adjuvants, Surfactants and Wetting Agents

LEOPARD® 200 EC Herbicide may be used with the following adjuvant systems:

- 1) A methylated and/or ethylated seed crop oil (e.g. Hasten<sup>†</sup>, Plantocrop<sup>†</sup>.) at 1 L/100 L of final spray volume (i.e. 1% v/v).
- 2) A non-ionic surfactant (1000 g ai/L), Wetspray<sup>®</sup> at 200 mL/100 L of final spray volume (i.e. 0.2% v/v).
- 3) A mineral oil + non-ionic surfactant based adjuvant i.e. Uptake<sup>†</sup>, Hotwire<sup>®</sup> or Enhance<sup>†</sup>; at 0.5 – 1.0% v/v (Use the higher rate of adjuvant when weeds are large or if spraying conditions are less than optimal)
- 4) A non-ionic surfactant (1000 g ai/L strength) at 0.1% v/v and a mineral spray oil at 1% v/v.

DO NOT use the surfactant + mineral oil adjuvant system on vegetable crops, use a surfactant only. DO NOT use a low emulsifier loaded spray oil alone, a surfactant must always be added. DO NOT use spray oils of crop origin (e.g. Codacide<sup>†</sup> oil, Synetrol<sup>†</sup> oil) as spray adjuvants.

### Compatibilities

LEOPARD® 200 EC Herbicide is compatible with the herbicides Sertin<sup>†</sup> 186 EC, Platinum<sup>®</sup>, Victory<sup>®</sup> and Victory<sup>®</sup> 750 SG. LEOPARD® 200 EC Herbicide is compatible with the insecticides Ballistic<sup>®</sup> Elite, Adama Dimethoate, Electra<sup>®</sup> 225, the fungicides Howzat<sup>®</sup> and mancozeb. LEOPARD® 200 EC Herbicide is compatible with the herbicide Bonanza<sup>®</sup> Elite when using the non-ionic surfactant only adjuvant system. DO NOT add crop oil to tank mixtures of LEOPARD® 200 EC Herbicide / Bonanza<sup>®</sup> Elite. Application of LEOPARD® 200 EC Herbicide / Bonanza<sup>®</sup> Elite tank mix may result in crop effects, which usually appear as yellow or white bleaching on the leaves. New growth and subsequent yield, however, will not be affected. To minimise crop effects apply LEOPARD® 200 EC Herbicide a minimum of 5 days prior to Bonanza<sup>®</sup> Elite application or a minimum 10 days after Bonanza<sup>®</sup> Elite application. (14 - 21 days if weeds have been stressed).

### Ground Spraying

Use between 50 and 100 litres of prepared spray/ha, the higher spray volume gives more reliable results. If weeds are large and the crop canopy is dense, increase the volume to 150 litres prepared spray/ha. Use sprayers with flat fan or hollow cone nozzles at 210-350 kPa to give an even distribution of droplets with no less than 50 % of the spray volume in the 150-300 micron range. 1100 flat fan nozzles are preferred. For proper spray coverage adjust the boom and nozzle height according to the specification listed by the nozzle manufacturers. Ensure the spray is evenly distributed and a double overlap spray pattern is obtained. Avoid overlapping boomspray widths and shut off spray booms while starting, slowing or stopping.

### Sprayer cleanup

Thoroughly clean all traces of LEOPARD® 200 EC Herbicide from application equipment immediately after use. Flush tank, pump, hoses and boom with several changes of water after removing nozzle tips and screens (clean those parts separately). Failure to thoroughly clean the equipment may result in injury to subsequently sprayed cereal

and grass crops. If spray equipment has been previously used for the application of sulfonylurea herbicides e.g. (Metsulfuron methyl), thifensulfuron methyl, chlorsulfuron, triasulfuron ensure that the recommended sprayer cleanup procedure of the product previously sprayed has been followed before using the equipment for the application of LEOPARD® 200 EC Herbicide.

### RESISTANT WEEDS WARNING

LEOPARD® 200 EC Herbicide is a member of the "Fop" (aryloxyphenoxy propanate) group of herbicides. LEOPARD® 200 EC Herbicide has the inhibitors of acetyl coA carboxylase mode of action. For weed resistance management LEOPARD® 200 EC Herbicide is a Group A herbicide. Some naturally occurring weed biotypes resistant to LEOPARD® 200 EC Herbicide and other Group A herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by LEOPARD® 200 EC Herbicide or other Group A herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Adama Australia accepts no liability for any losses that may result from failure of LEOPARD® 200 EC Herbicide to control resistant weeds. Strategies to minimise the risk of herbicide resistance are available. Consult your farm chemical supplier, consultant, Adama Australia Representative or local Department of Agriculture or Primary Industries.

### PRECAUTION: RE-ENTRY

DO NOT allow entry into treated areas until the spray has dried. When prior entry is necessary, wear chemical resistant gloves. Clothing must be laundered after each day's use.

### PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT plant cereal crops into the treated area for a period of 18 weeks after application of LEOPARD® 200 EC Herbicide. DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops, cropping land or pastures.

### PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

### STORAGE AND DISPOSAL

#### (10 L, 20 L and 200 L only)

DO NOT store tank-mixes of LEOPARD® 200 EC Herbicide with other materials. Store in the closed original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. When storing, keep from contact with fertilisers, fungicides and seeds. Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean container to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulation. Do not burn empty containers or product. If the container is a returnable/refillable type, when empty, or contents no longer required, return the container to the point of purchase. This type of container remains the property of Adama Australia.

#### Refillable Containers:

##### (1000 L only)

Store in closed, original container in a cool, well – ventilated area. DO NOT store for prolonged periods in direct sunlight. Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

#### Envirodrum 110 L Mini Bulk Returnable Container:

Store the original sealed ENVIRODRUM in a cool well ventilated area. DO NOT store for prolonged periods in direct sunlight. DO NOT tamper with Micro Matic valve or security seal. DO NOT contaminate the ENVIRODRUM with water or any foreign matter. After each use of the product, please ensure that the Micro Matic coupler, delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the contents of the ENVIRODRUM have been used, please return the empty ENVIRODRUM to the point of purchase. The ENVIRODRUM remains the property of Adama Australia.

### SAFETY DIRECTIONS

Will irritate the eyes and skin. Avoid contact with eyes. When opening the container, preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, and elbow-length PVC gloves. If product on skin immediately wash area with soap and water. Wash hands after use. After each day's use wash gloves and contaminated clothing.

GROUP **A** HERBICIDE

**FIRST AID**

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If swallowed do NOT induce vomiting. Give a glass of water. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

**SDS**

Additional information is listed in the safety data sheet (SDS). A safety data sheet for LEOPARD® 200 EC is available from adama.com or call Customer Service on 1800 423 262.

**CONDITIONS OF SALE:** The use of LEOPARD® 200 EC Herbicide being beyond the control of the manufacturer, no warranty expressed or implied is given by Adama Australia regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Adama Australia accepts no responsibility for any consequence whatsoever resulting from the use of this product.

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**NOT A DANGEROUS GOOD ACCORDING TO THE AUSTRALIAN DANGEROUS GOODS (ADG) CODE.**